TO822T 2090-00T

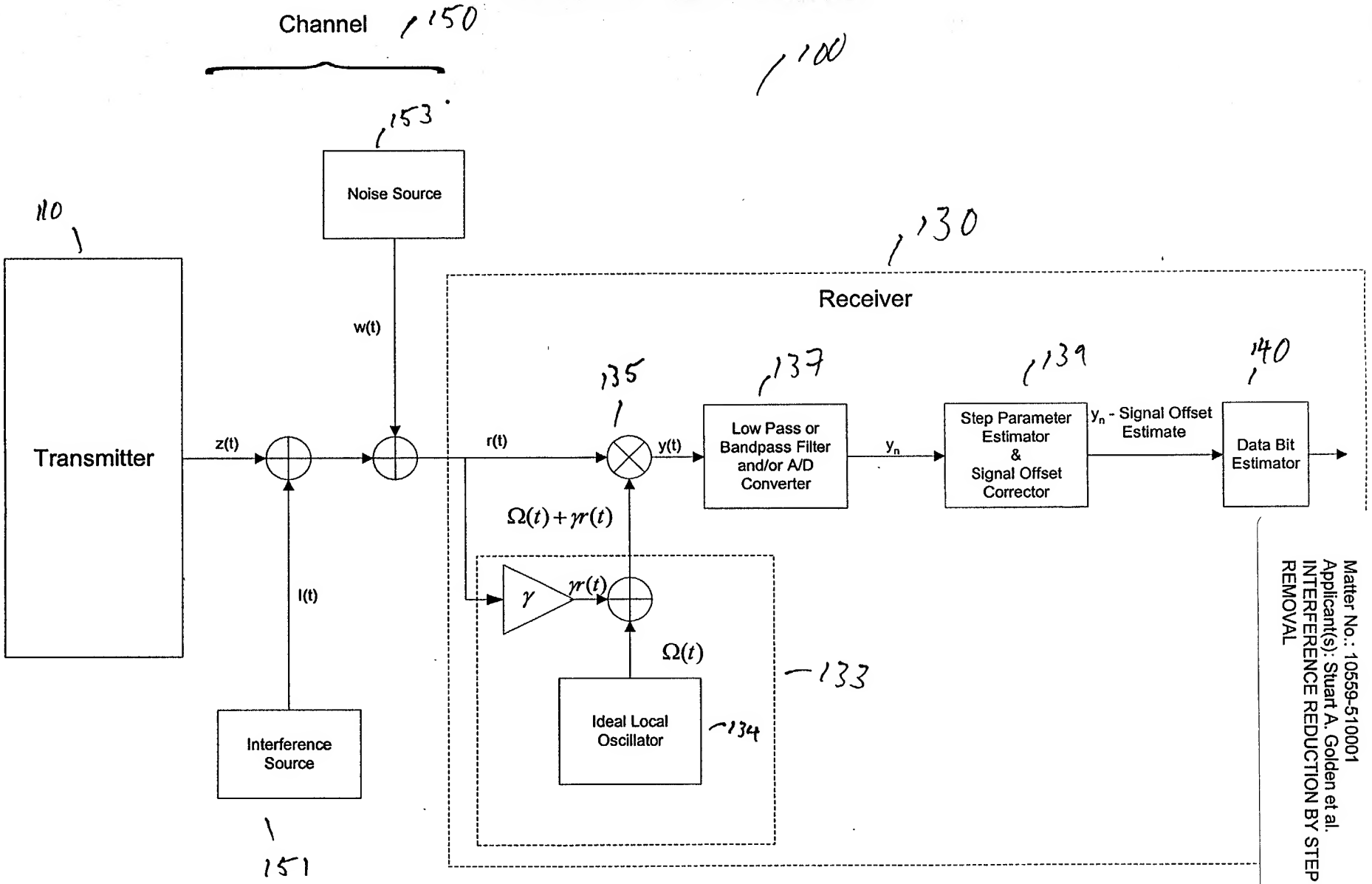

Fig. 1

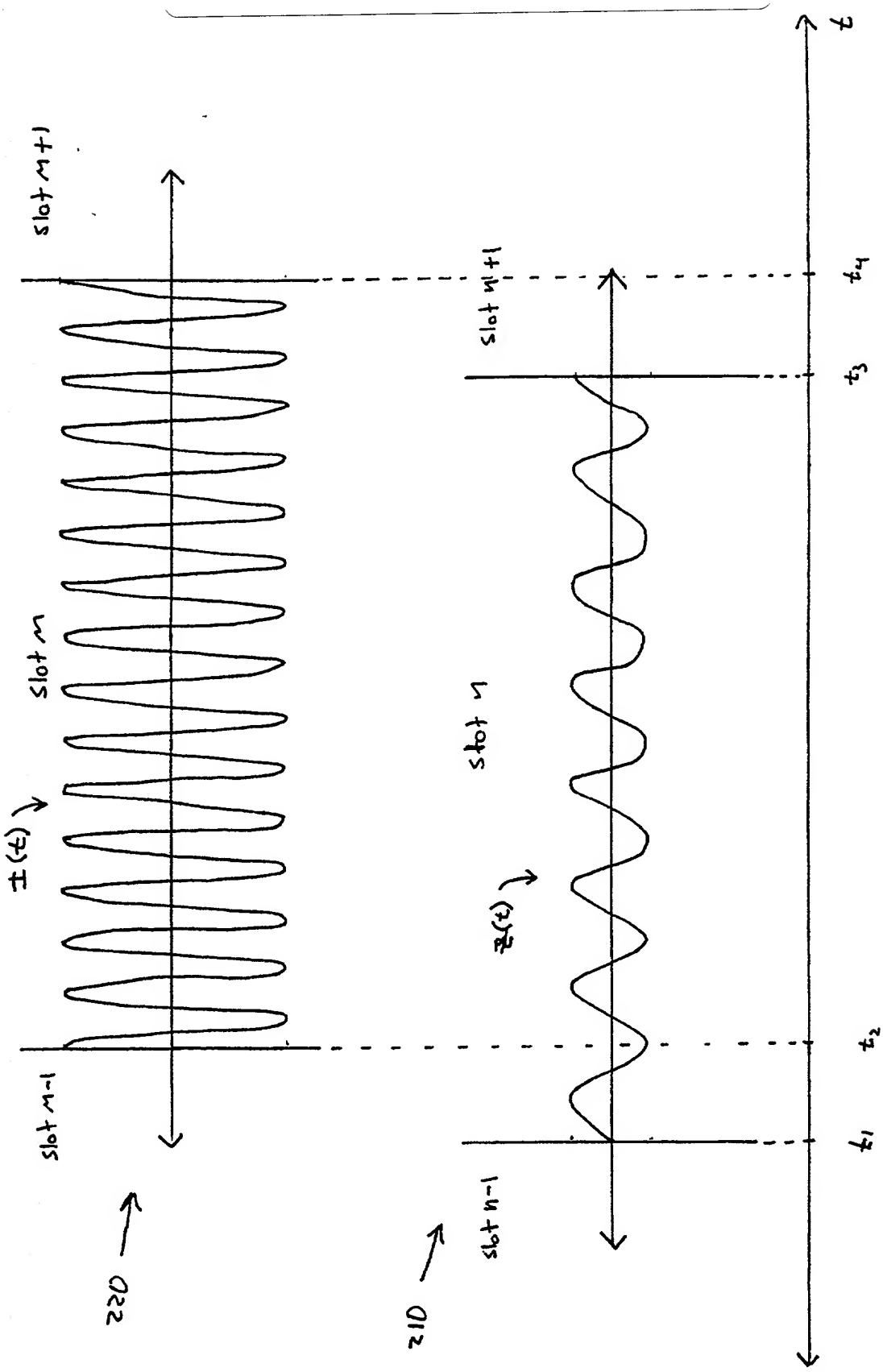

Fig. 2

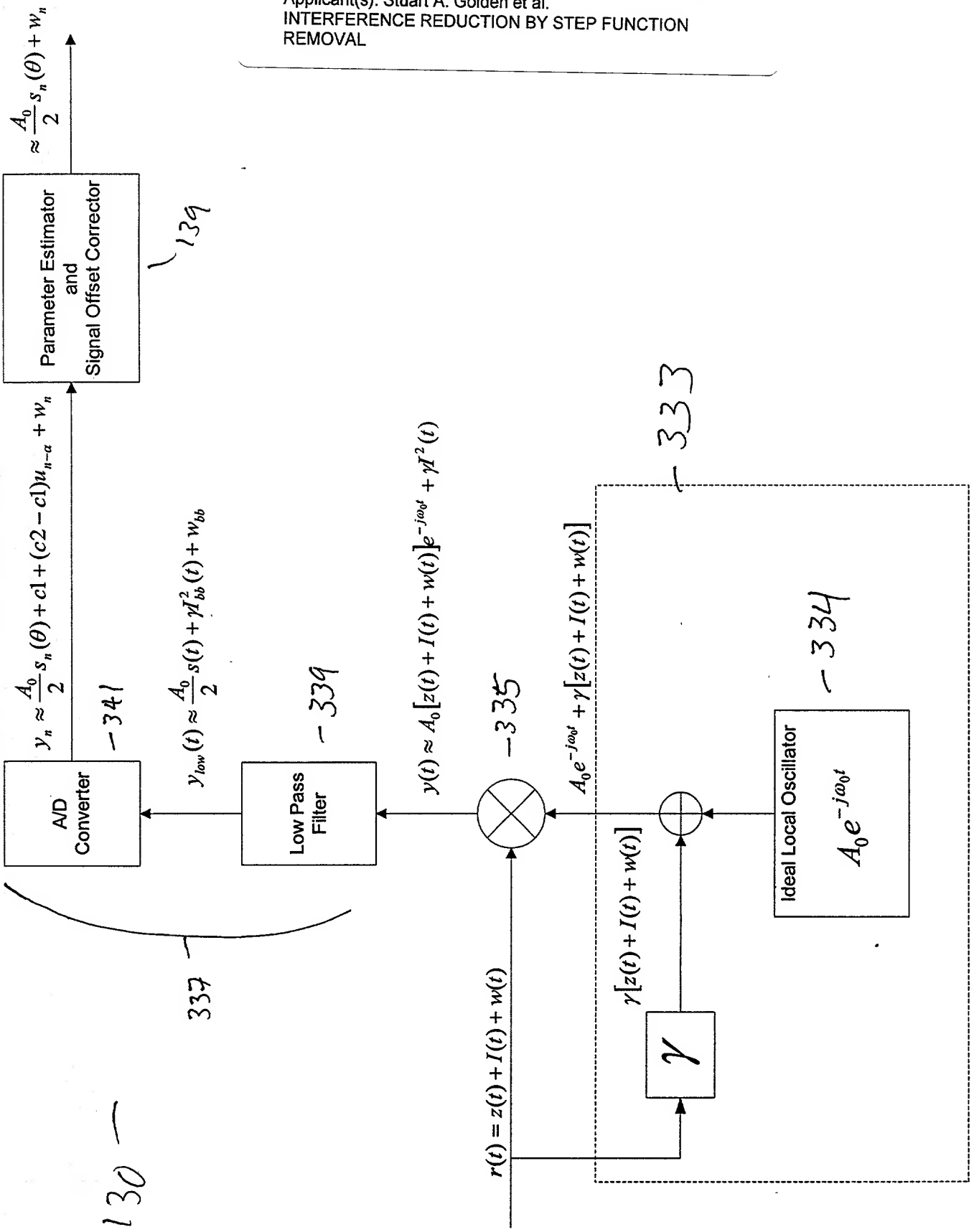
$\approx \frac{A_0}{2} s_n(\theta) + w_n$
Parameter Estimator and Signal Offset Corrector
139
$y_n \approx \frac{A_0}{2} s_n(\theta) + c1 + (c2 - c1)u_{n-a} + w_n$
341
A/D Converter
$y_{low}(t) \approx \frac{A_0}{2} s(t) + \gamma I_{bb}^2(t) + w_{bb}$
339
Low Pass Filter
$y(t) \approx A_0[z(t) + I(t) + w(t)]e^{-j\omega_0 t} + \gamma I^2(t)$
335
$A_0 e^{-j\omega_0 t} + \gamma[z(t) + I(t) + w(t)]$
333
Ideal Local Oscillator
$A_0 e^{-j\omega_0 t}$
334
$\gamma[z(t) + I(t) + w(t)]$
γ
$r(t) = z(t) + I(t) + w(t)$
337
130

Fig. 3

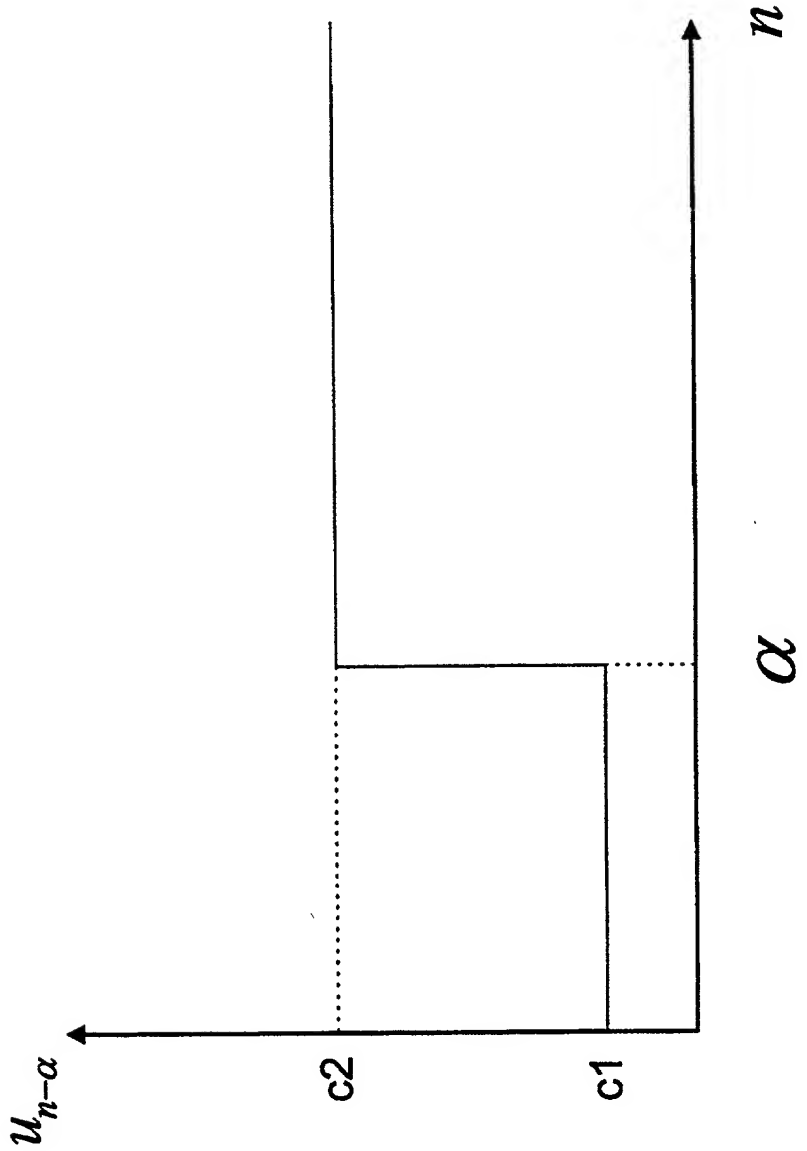

Fig. 4

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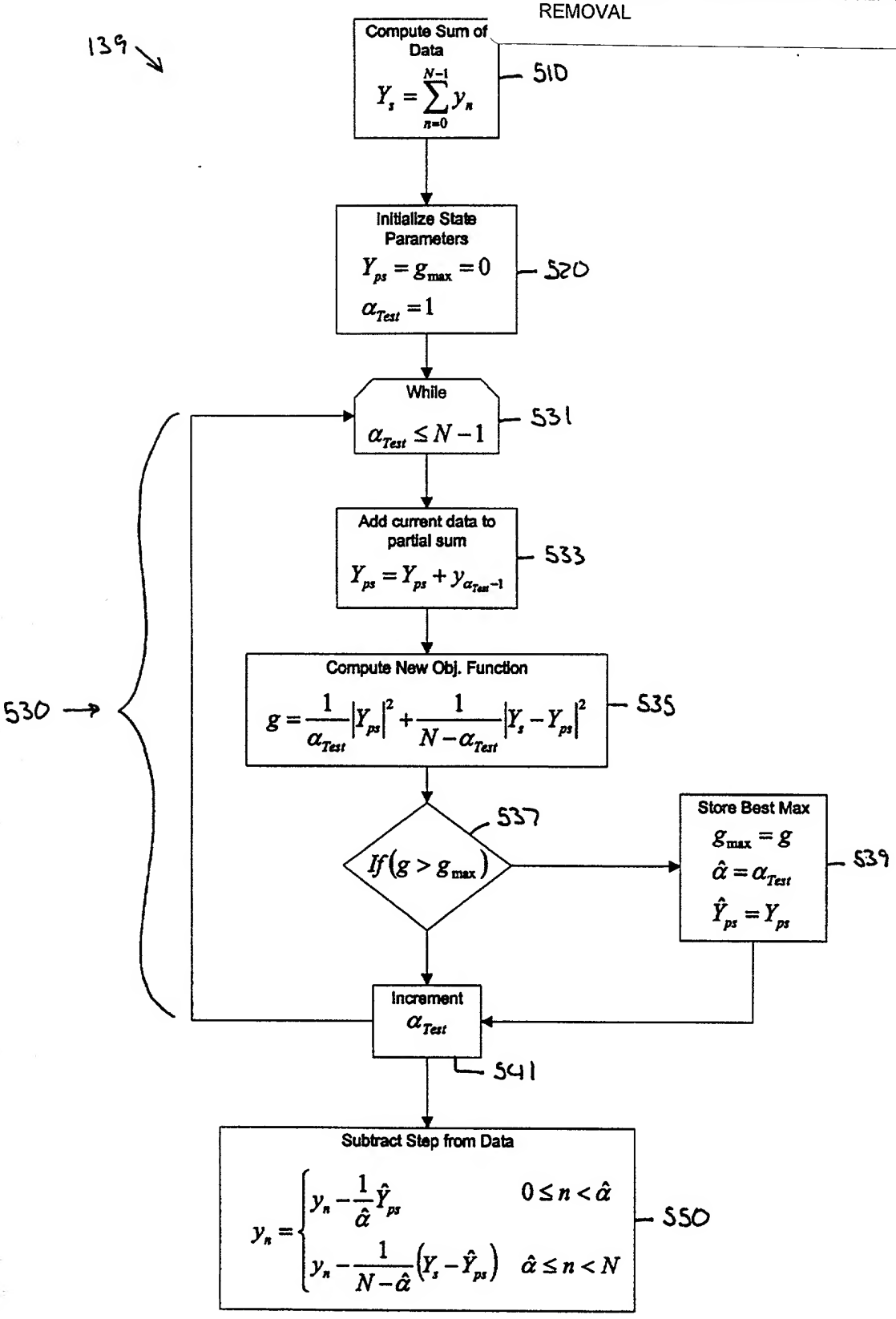
139
Compute Sum of Data
$Y_s = \sum_{n=0}^{N-1} y_n$
510
Initialize State Parameters
$Y_{ps} = g_{\max} = 0$
$\alpha_{Test} = 1$
520
While
$\alpha_{Test} \le N-1$
531
Add current data to partial sum
$Y_{ps} = Y_{ps} + y_{\alpha_{Test}-1}$
533
Compute New Obj. Function
$g = \frac{1}{\alpha_{Test}}|Y_{ps}|^2 + \frac{1}{N-\alpha_{Test}}|Y_s - Y_{ps}|^2$
535
530
If $(g > g_{\max})$
537
Store Best Max
$g_{\max} = g$
$\hat{\alpha} = \alpha_{Test}$
$\hat{Y}_{ps} = Y_{ps}$
539
Increment α_{Test}
541
Subtract Step from Data
$y_n = \begin{cases} y_n - \frac{1}{\hat{\alpha}}\hat{Y}_{ps} & 0 \le n < \hat{\alpha} \\ y_n - \frac{1}{N-\hat{\alpha}}(Y_s - \hat{Y}_{ps}) & \hat{\alpha} \le n < N \end{cases}$
550

Fig. 5